CLAIMS

1. A method for actuating execution units, comprising:

(a) providing a physical network of a series of sub-chains connected in series,

(i) wherein each sub-chain includes an execution unit;

(ii) wherein the execution unit of each sub-chain is assigned a unique identifier;

(iii) wherein, if the execution unit of an individual sub-chain fails, the execution units of the sub-chains connected in series to the individual sub-chain do not fail also as a result of the failure of the execution unit of the individual sub-chain;

(iv) wherein each sub-chain includes exactly one up-stream communication node (ICN);

(v) wherein the communication nodes (ICN) of the sub-chains are chained together in series and establish a communication chain of upstream communication nodes (ICN);

(vi) wherein the communication node (ICN) of each sub-chain passes through signals received, such that the rest of the communication chain persists if the sub-chain fails;

(vii) wherein the communication nodes (ICN) include at least one input interface and at least one output interface; and

(viii) wherein the at least one input interface and the at least one output interface of the communication node (ICN) of each sub-chain are selectably lockable, as selected by the unique identifier of the execution unit of the sub-chain; and

(b) sequentially checking each of the sub-chains by means of a query to the respectively upstream communication node (ICN) of the sub-chain in question, wherein the unique identifier of the execution unit of each sub-chain is assigned by the upstream communication node (ICN) with a command generated by a control unit upstream from the communication chain.

2. The method according to claim 1, characterised in that the actuation comprises a read operation and/or a write operation

3. The method according to either claim 1 or claim 2, characterised in that the unique identifier takes the form of an address, a numbering and/or a name.

4. The method according to any of the preceding claims, characterised in that the at least one input interface and the at least one output interface can be blocked by the control unit and/or the associated communication node (ICN).

5. The method according to any of the preceding claims, characterised in that the at least one input interface and the at least one output interface can be blocked as a function of a provided identifier.

6. The method according to any of the preceding claims, characterised in that the individual identifiers are conveyed to the control unit sequentially.

7. The method according to any of the preceding claims, characterised in that, to each communication node (ICN), the identifiers from the sub-chain from which the communication node (ICN) is upstream are conveyed.

8. The method according to any of the preceding claims, characterised in that the sub-chains segment the entirety of the execution units.

9. A system arrangement for actuating execution units, the system comprising a physical network of a series of sub-chains connected in series,

(a) wherein each sub-chain includes an execution unit;

(b) wherein the execution unit of each sub-chain is assigned a unique identifier;

(c) wherein, if the execution unit of an individual sub-chain fails, the execution units of the sub-chains connected in series to the individual sub-chain do not fail also as a result of the failure of the execution unit of the individual sub-chain;

(d) wherein each sub-chain includes exactly one up-stream communication node (ICN);

(e) wherein the communication nodes (ICN) of the sub-chains are chained together in series and establish a communication chain of upstream communication nodes (ICN);

(f) wherein the communication node (ICN) of each sub-chain passes through signals received, such that the rest of the communication chain persists if the sub-chain fails;

(g) wherein the communication nodes (ICN) include at least one input interface and at least one output interface;

(h) wherein the at least one input interface and the at least one output interface of the communication node (ICN) of each sub-chain are selectably lockable, as selected by the unique identifier of the execution unit of the sub-chain;

(i) wherein the system is configured to sequentially check each of the sub-chains by means of a query to the respectively upstream communication node (ICN) of the sub-chain in question; and

(j) wherein the unique identifier of the execution unit of each sub-chain is assigned by the upstream communication node (ICN) with a command generated by a control unit upstream from the communication chain.

10. A computer program product comprising control commands which carry out the method according to any of claims 1 to 8 when they are executed on a computer.